

# ENERGY CONTROL PROCEDURE (ECP)

**CatalystGroup**

Compliance. Anytime. Anywhere.

## ECP: Development and Maintenance

### Executive Summary

Our client, a US based manufacturer of medical devices, was in need of easy to understand Energy Control Procedures (ECPs). In the past, the client's employees had sustained injuries because the manufacturing and packaging equipment at their production facilities were not properly de-energized prior to workers entering the machinery. Rather than using the conventional ECP writing model where the service provider

writes the ECPs offsite after evaluating the equipment, we chose to deploy an on-site consultant who developed the ECPs at the client's location. The method of writing ECPs gave us access to our onsite HSE Support staff, machinery and subject matter experts (SMEs) resulting in the timely production of accurate, comprehensive ECPs. This resulted in greater understanding on how workers enter machinery and how to



properly de-energize machinery allowing us to produce procedures essential for safe working conditions.

## Challenges

Prior to our work with this client, personnel were incorrectly shutting down power to equipment or were bypassing safety barriers and locks to work on energized equipment resulting in injuries. The client did not have a uniform ECP with clear and understandable procedures that would help them achieve a state of zero-energy when shutting down equipment.

## How We Helped

### 1. Created a LOTO ECP Template:

First, we designed a LOTO ECP template, which contained all of the OSHA-required ECP elements and was adaptable to meet our client's needs. The ECP template included a simple schematic of the equipment, identified key parts of the equipment (for orientation purposes), and identified the energy isolation device (EID) inputs into the equipment. The template also included simplified, color-coded labeling of EID points on the schematic drawing and the front of the ECP diagramed and described (in the narrative, sequential steps) the methods of LOTO necessary to achieve a zero-energy state (ZES). Stored energies, dual-source electrical equipment, and other precautions and warnings for authorized persons performing the ECP were also identified within the ZES template along with alternative ECPs applicable to specific tasks associated with the servicing/maintenance of the equipment and

was adaptable to include as many alternate ECPs as were necessary.

### 2. Prepare ECPs:

Using the new template, we developed ZES ECPs for designated equipment. Then we scheduled the ECP development for equipment when it was brought offline as part of the normal production and maintenance cycles. This allowed flexibility for completing the ECPs while having minimal impact on production. We also required the support of our client's personnel who were knowledgeable in both the operation of the machinery and more importantly the locations of energy sources feeding and or storing energy within the subject equipment. Our ECP development process included the advance preparation of schematics and other documents where possible to improve the efficiency of our clients SMEs involved in this project.

### 3. Review ZES ECPs, and Identify/Create Alternative ECPs for Specific Work Tasks (where applicable):

In many instances, a ZES ECP is not necessary (or desirable) to perform many work tasks associated with the maintenance and servicing of the equipment during normal operations. Using the OSHA definitions found in 29 CFR 1910.147 (The Control of Hazardous Energy – Lockout/Tagout) for alternative LOTO procedures we were able to work with our client subject matter experts to identify and document alternative ECPs as needed. The alternative ECPs were documented on the second (and subsequent) pages of the main ECP.

### 4. Update ECPs As Necessary:



Our client site is undertaking upgrades and changes to its equipment as the result of recent activities (in which Catalyst HSE Group was involved) to ensure compliance with OSHA LOTO and machine safeguarding regulations. The proposed OSHA compliance changes may result in the need to update the site's ECPs. The Catalyst HSE Group participated in the compliance change process, then captured and updated the site's ECPs affected by these changes.

Kathy Meissner  
VP, HSE

[kmeissner@catalyst-hsegrou.com](mailto:kmeissner@catalyst-hsegrou.com)  
817.713.0081

[www.catalyst-hsegrou.com](http://www.catalyst-hsegrou.com)

10 Schalks Crossing Road  
Suite 501A-299  
Plainsboro NJ 08536

## Results

Today, as a result of our work, we have been awarded a global MSA with this client to provide comprehensive HSE services.

## About Us

A premier global consultancy, The Catalyst HSE Group is trusted by clients to manage their most challenging environmental, health and safety issues.

Our reputation has been built on a foundation of solid technical and scientific excellence, innovation and client service. Our independent science-first approach ensures that our strategic advice is objective and defensible. We apply integrated multi-disciplinary services and tailor each solution to our client's specific needs and challenges. This approach transforms us from a company that just delivers a service to one that is a true partner in risk minimization.

## Contact Us

For more information and for access to decades of HSE experience, contact:

